

PhD (Computing)

PhD (Computing)

SZABIST offers a PhD Degree in Computing that can be completed during the evenings in three years after the MS degree. 6 PhD courses and dissertation are required to graduate. A total of 48 credit hours must be completed.

Specializations of Study

Specialized areas include Database Engineering, Data Warehousing & Mining, Networking & Communication, Business Intelligence, Process Modeling, Telecommunication, Mobile Communication, Mobile Computing, Artificial Intelligence, Software Engineering, Agent Systems, Multimedia & HCI Systems, Speech Recognition, e-Business and Technology Management, Intelligent Systems, Mechatronics, Machine Vision Image Processing, MIS and any other area which falls within the purview of Computer Science/Computing.

Research

SZABIST strongly encourages the publication of research findings of Independent Studies, Thesis and Dissertation in research journals and conferences. SZABIST also publishes its own research journals.

Admission Requirements

For admission to the PhD Program, the candidate must have a 17.5 years of education in a relevant field with minimum 60% marks/ CGPA 3.00 from an HEC recognized institution. GAT Subject/GRE with minimum 60% score. Last Degree verification from Higher Education Commission (HEC) is required.

Fee Structure*

Application Processing Fee	: Rs. 1,500 (Pakistani nationals)/US\$ 45 (Foreign nationals)
Admission Fee	: Rs. 20,000 (Pakistani nationals)/US\$ 500 (Foreign nationals)
Security Deposit (Refundable)	: Rs. 10,000 (Pakistani nationals)/US\$ 330 (Foreign nationals)
Student Activity Charges	: Rs. 1000 per semester (Pakistani nationals) US\$ 30 (Foreign nationals)
Tuition Fee (Tentative)	: Rs.60,300 for Pakistani nationals; US\$ 1,350 for foreign nationals (full load of Three Courses per semester)

*SZABIST reserves the right to revise the fees/withdrawal of scholarship without any prior notice.

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COURSES

Following is a tentative list of course offerings for the PhD degree program at SZABIST.

Elective courses are offered from the specialized areas of study listed above, subject to minimum enrollment condition

Independent Research Study
Electives-I, II, III, IV
Dissertation
(for Electives, see specialized courses)



Discover Yourself

Faculty of Computing & Engineering Sciences

BS Computer Sciences
MS Computer Sciences
PhD Computing



SZABIST



Shaheed Zulfikar Ali Bhutto Institute of Science & Technology

Shaheed Zulfikar Ali Bhutto Institute of Science & Technology

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About SZABIST

Shaheed Zulfiqar Ali Bhutto Institute of Science and Technology (SZABIST) is highly ranked and fully chartered institute of Pakistan established through a Legislative Act of Sindh Assembly (Sindh Act No. XI of 1995). It is approved and recognized by the Higher Education Commission (HEC), Pakistan, as a degree awarding institution. All the programs offered at SZABIST are consistent with the guidelines set by HEC and other regulatory bodies, for example, National Business Education Accreditation Council (NBEAC), National Computing Education Accreditation Council (NCEAC), National Accreditation Council for Teacher Education (NACTE), Pakistan Engineering Council (PEC) and Knowledge Human and Development Authority (KHDA) Dubai, United Arab Emirates (UAE).

HEC & CIEC Ranking

SZABIST is ranked as one of the most reputed university by HEC and Chartered Inspection and Evaluation Committee (CIEC). SZABIST Business School has been rated as "Outstanding" by CIEC and HEC, Pakistan. In addition, all the relevant programs are accredited and recognized by NBEAC, NCEAC, NACTE, PEC, and KHDA Dubai. Since 2012, the SZABIST-QEC has been awarded more than 91% in the quantitative assessment by Quality Assurance Agency (QAA) HEC, Pakistan.

International Linkages

SZABIST is a member of many prestigious national and international organizations and associations. These include the International Association of Universities (IAU), Paris; Association of Commonwealth Universities (ACU), London; the Association to Advance Collegiate School of Business (AACSB), Singapore; Federation of the Universities of Islamic World (FUIW), Rabat; Asia Universities Federation (AUF), Seoul; Asia-Pacific Quality Network (APQN), People's Republic of China; Management Association of Pakistan (MAP), Karachi; Marketing Association of Pakistan, Karachi, The Chartered Institute of Logistics and Transport (CILT) and Human Resource Development Network (HRDN), Islamabad; Association of Quality Assurance Agencies of the Islamic World (AQAAIW).

Research

SZABIST strongly encourages research. SZABIST published research journals in various disciplines including Computing i.e. the Journal of Independent Studies and Research (JISR-C). SZABIST also conducts various conferences and seminars our academic year.

BS (Computer Science)

BS (Computer Science)

SZABIST offers a four-year (eight semesters) BS Computer Science degree program which is accredited by National Computing Education & Accreditation Council, (NCEAC). The program covers a wide range of courses in core computer science, information technology and software engineering. The program is essentially a day program and consists of 40 courses (five courses per semester) with a total of 130 credit hours. The complete course plan includes 8 technical electives and 4 university electives. These 8 technical electives provide intensive learning in the diversified areas of computer science and allied disciplines. Internship opportunities are provided to complete degree requirement. The maximum time limit to complete the degree program is six years.

Admission Requirements

The candidate must have completed O levels (minimum 8 passes) and A levels (minimum 3 passes)/12th grade/Intermediate with minimum 50% marks, (including first year, no supplementary)/equivalent from a recognized institution. Mathematical background will be preferred for BS-Computer Science program. Inter Board Committee of Chairmen (IBCC) equivalency is required for O & A Levels/IB Diploma/High School Diploma or equivalent. General Paper (A Levels) will not be counted.

Fee Structure*

Application Processing Fee	: Rs. 1,500 (Pakistani nationals)/US\$ 45 (Foreign nationals)
Admission Fee	: Rs. 20,000 (Pakistani nationals)/US\$ 500 (Foreign nationals)
Security Deposit (refundable)	: Rs. 10,000 (Pakistani nationals)/US\$ 330 (Foreign nationals)
Student Activity Charges	: Rs. 1000 per semester for Pakistani nationals; US\$ 30 per semester for foreign nationals
Tuition Fee per semester	: (Tentative) Rs. 92,800 for Pakistani nationals; US\$ 2,080 per semester for foreign nationals (full load of five courses per semester & 16 credit hours)

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BS (Computer Science)

FIRST YEAR	Discrete Mathematical Structures	Computer Networks and Data Communications
Fall Semester	Introduction to Computer Science	CS Supporting-1
	Fundamentals of Programming	CS Elective-1
	English Composition and Comprehension	CS Elective-2
	Calculus and Analytical Geometry	Technical and Business Writing
	Applied Physics	FOURTH YEAR
Spring Semester	Design and Analysis of Algorithms	Fall Semester
	Finite Automata Theory and Formal Languages	CS Elective-3
	Database Systems	CS Elective-4
	Linear Algebra	Final Year Project-I
	University Elective-2	University Elective-3
THIRD YEAR	Fall Semester	Parallel and Distributed Computing
	Compiler Construction	Spring Semester
	CS Supporting-2	CS Elective-5
	Operating Systems	University Elective-4
	Software Engineering	Final Year Project-II
SECOND YEAR	CS Supporting-3	Information Security
Fall Semester	Computer Organization and Assembly Language	Pakistan and Islamic Studies/Humanities
	Data Structures and Algorithms	
	Artificial Intelligence	

MS (Computer Science)

MS (Computer Science)

SZABIST offers MS (CS) degree in three domains: Core Computer Science area and in two specialization tracks, i.e., Software Engineering (SE) and Networks and Security (N&S). Students are required to complete 3 focused courses in any specific domain.

The program is of 2-year duration and is offered in the evening. It requires 33 credit hours to complete. Student has the option to complete MS through course work only or with research. If student opts for course work only, he/she is required to complete 11 courses of 3 credit hours each. Else, the student is required to complete 9 Courses (27 credit hours) and Two Independent Research Study (6 credit hours) OR One Thesis (6 credit hours). The maximum time limit to complete the MS degree is four years.

Admission Requirements

For admission to MSCS program candidates must possess 16 years of relevant education with minimum 60% marks/2.00 CGPA from a university recognized by HEC. The candidates with a 4-year professional degree (BE, MSc, etc.) may also apply but will require to complete deficiency conversion courses (upto 18 credit hours courses to be determined in consultation with Program Manager). GAT (General) or HAT relevant is mandatory for MS students with minimum 50% score. Last Degree verification from Higher Education Commission (HEC) is required.

Fee Structure*

Application Processing Fee	: Rs. 1,500 (Pakistani nationals)/US\$ 45 (Foreign nationals)
Admission Fee	: Rs. 20,000 (Pakistani nationals)/US\$ 500 (Foreign nationals)
Security Deposit (refundable)	: Rs. 10,000 (Pakistani nationals)/US\$ 330 (Foreign nationals)
Student Activity Charges	: Rs. 1000 per semester for Pakistani nationals; US\$ 30 per semester for foreign nationals
Tuition Fee per semester	: Rs. 60,300 for Pakistani nationals; US\$ 1,350 for foreign nationals (full load of Three Courses per semester) OR Rs. 80,400 for Pakistani nationals; US\$ 1,800 for foreign nationals (full load of Four Courses per semester)

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Master of Science in Computer Science

Core Courses

Research Methodology
Advanced Algorithms Analysis
Theory of Computation
Advanced Operating Systems
Advanced Computer Architecture

Courses for Specialization Computer Science (CS)

Real-Time Systems
Digital Image Processing
Machine Learning
Data Mining
Operation Research
Expert System

Software Engineering (SE)

Software Requirement Engineering
Software System Architecture
Software System Quality
Advanced Software Engineering

Networks & Security (N&S)

Advanced Computer Networks
Network Security
Applied Cryptography
Information Security
Wireless Sensor Networks



Admission Schedule

Admissions Start	: May 07, 2018
Last Date to Apply	: July 14, 2018
Admission Test	: July 18-21, 2018
Interviews	: July 28 to August 03, 2018
Classes Commence	: September 03, 2018

APPLY ONLINE:

Log on to: <http://admissions.szabist.edu.pk>
Online applications can also be filled at SZABIST campus

For further information please contact:
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